

~~БИБИКОВ, В. А. (БИБИКОВ, В. А.)~~ в НАУКА, Л. О. ВИДАНИЯ;

"The Problem of Double Signaling in Problems of Simulation of Nervous Activity."

report presented at the 3rd Conference on the use of Mathematics in Biology, Leningrad University, 23-28 Jan 1961.

(Применение математических методов в Биологии. II, Leningrad, 1963, pp. 5-11)

(Moscow Agricultural Academy imeni Timiryazev)

KRYUKOV, B.I.; MAKAROV, P.O.

Problem of double signalization in the model study of
nervous activity. Prim. mat. metod. v biol. no.2:52-59
'63. (MIRA 16:11)

KRYUKOV, B.V.; PELIKH, A.V.

Device for cutting grooves on bushings. Stan. i instr. 26 no. 1:
32 Ap '55. (MLRA 8:6)
(Metal cutting)

KRYUKOV, B.V., inzh.; PELIKH, A.B., inzh.

Modernization of the ASSh-2 machine. Svar. proizv. no. 7:39
J1 '61. (MIRA 14:6)

1. Mekhanicheskiy zavod No.5 "Glavtunnel'metrostroya."
(Gas welding and cutting—Equipment and supplies)

VOLOTKOVSKIY, S.A., professor, doktor tekhnicheskikh nauk; KRYUKOV, D.K.,
inshener

Automatization of underground traction substations. Gor.zhur. no.6:
40-45 Je '55.
(MIRA 8:8)
(Mine railroads) (Electric substations) (Automatic control)

SOV/112-58-1-584

Translation from: Referativnyy zhurnal, Elektrotehnika, 1958, Nr 1,
pp 86-87 (USSR)

AUTHOR: Volotkovskiy, S. A., and Kryukov, D. K.

TITLE: Automation of Traction Substations for Supplying Contact Network of
Underground Electric-Locomotive Haulage (Avtomatizatsiya tyagovykh
podstantsiy dlya pitaniya kontaktnoy seti podzemnoy elektrovoznoy otkatki)

PERIODICAL: V sb.: Avtomatizatsiya v ugol'n. prom-sti, Moscow, Ugletekhizdat,
1956, pp 458-469

ABSTRACT: Schemes of automation of underground traction substations comprising
exclusively Soviet equipment are presented. The schemes provide for central-
ized control for starting and stopping machines from a dispatcher's station that
may be situated either in the shaft or on the surface. Multichannel-type re-
mote control is also possible. The expediency of substation automation is con-
sidered, depending on the types of converting machinery used. A detailed de-
scription is presented of automation of 2 traction substations that have 2 pump-

Card 1/3

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Automation of Traction Substations for Supplying Contact Network of Underground . . .

less RM-300 mercury rectifiers (one normally operating, another reserve) and motor-generators. The schemes provide for the following: (1) on-off remote control of the set from both the substation control board and the dispatcher's bench; (2) double reclosing of the set circuit during starting procedure or after protective system operation; on an unsuccessful reclosure, the reclosure automatic devices are blocked and a signal is sent that automatically starts the reserve set; (3) reclosing by the dispatcher after tripping because of dangerous temperature rise of rectifier tank or power transformer; (4) blocking of automatic control of the set after a tripping by overcurrent protection or ground protection system with simultaneous sending of a signal to start the reserve set automatically. Unblocking is possible only by servicemen arriving at the substation. The set protective system operation is described. Recommendations for equipment selection are made. For motor-generator substations, supplementary protection is provided against bearing overheating and short-circuits on the AC side. Both schemes are simple and reliable in operation,

Card 2/3

SOV/112-58-1-584

Automation of Traction Substations for Supplying Contact Network of Underground
and can be realized with an insignificant increase in capital outlay as compared
to the manually-controlled substations. Also see Referativnyy Zhurnal,
Elektrotehnika, 1957, 28896.

V. Ya. A.

AVAILABLE: Library of Congress

1. Railroads--Operation 2. Railroads--Equipment 3. Railroads--Control
systems

Card 3/3

KRYUKOV, D.K., assist.

Flywheel moment in ball mills, Iss. vys. ucheb. zav.; gor. zhur.
no. 2:131-134 '58. (MIRA 11:5)

1. Sverdlovskiy gornyy institut.
(Crushing machinery)

KRYUKOV, D.K., assistant

Static moment in ball mills during their start. Izv.vys.ucheb.
zav.; gor.shur. no.4:129-133 '58. (MIRA 11:11)

1. Sverdlovskiy gornyy institut.
(Crushing machinery)

KRYUKOV, D. K., Cand Tech Sci (diss) -- "Investigation of the power supply and lining of ball mills". Sverdlovsk, 1959. 20 pp (Min Higher and Inter Spec Edue USSR, Main Admin of Engineering-Technical Vuzes, Sverdlovsk Mining Inst im V. V. Vakhrushev), 150 copies (KL, No 14, 1960, 132)

KRYUKOV, D.K., assistant

Graphoanalytical method of determining the capacity of electric
motors for ball mills. Izv.vys.ucheb.zav.: gor.zhur. no.1:
157-163 '59. (MIRA 13:1)

1. Sverdlovskiy gornyy institut. Rekomendovana knafedroy gornoj
elektrotehniki.
(Crushing machinery--Electric driving)

KRYUKOV, D.K., assistant

Grapho-analytical method of selecting the shape of ball mill
lining plates. Izv.vys.ucheb.zav.; gor.zhur. no.4:106-111
'59. (MIRA 13:5)

1. Sverdlovskiy gornyy institut imeni V.V.Vakhrusheva.
Rekomendovana ka"edroy gornoj elekrotehniki.
(Crushing machinery)
(Mechanical wear)

DEMİN, A.M., kand. tekhn. nauk; KOKH, P.I.; CHERTKOV, V.K.; VASIL'YEV, M.V., kand. tekhn. nauk; YEFIMOV, I.P.; KMITOVENKO, A.T., dots.; PRISEDSKIY, G.V., inzh.; DUNAYEVSKIY, Yu.N.; VOLOTKOVSKIY, S.A., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn. nauk; MAYMIN, A.I.; MIROSHNIK, A.M.; PETROV, I.P.; TURYSHEV, B.F.; SHISHKOV, A.I.; AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS, V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G., red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook for the mechanic in a coal pit] Spravochnik mekhanika ugol'nogo kar'era. Moskva, Gosgortekhizdat, 1961. 639 p.

(MIRA 15:12)

(Coal mining machinery—Handbooks, manuals, etc.)

DEMİN, A.M., kand. tekhn. nauk; CHERTKOV, V.K.; VASIL'YEV, M.V.,
kand. tekhn. nauk; YEFIMOV, I.P.; KOKH, P.I.; KMITOVENKO, A.T.,
dots.; PRISEDSKIY, G.V., inzh.; DUNAYEVSKIY, Yu.N.; VOLOTKOVSKIY,
S.A., prof., doktor tekhn. nauk; KUR'YAN, A.I., kand. tekhn.
nauk; MAYMIN, S.R., kand. tekhn. nauk; MIROSHNIK, A.M., kand.
tekhn. nauk; PETROV, I.P., kand. tekhn. nauk; TURYSHEV, B.F.,
kand. tekhn. nauk; SHISHKOV, A.I., kand. tekhn. nauk;
AVERBUKH, I.D., inzh.; VARSHAVSKIY, A.V.; KRYUKOV, D.K.; LUKAS,
V.A.; MINEYEV, V.A.; SMIRNOV, A.A., otv. red.; LYUBIMOV, N.G.,
red. izd-va; MAKSIMOVA, V.V., tekhn. red.

[Handbook for the operator and mechanic of open-pit mine equipment] Spravochnik mekhanika ugol'nogo kar'era. Moskva, Gos.
nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 639 p.

(MIRA 15:3)

(Strip mining—Equipment and supplies)
(Coal mining machinery) (Electricity in mining)

KRYUKOV, D.K.; SHIROM, V.V., retsenzent

[Lining of ball mills] Futerovki sharovykh mel'nits. Mo-
skva, Mashinostroenie, 1965. 183 p. (MIRA 18:7)

LAVRIK, P.I.; RYBITSKIY, N.A.; KRYUKOV, Fedor Aksent'yevich

[The fruit and berry orchard; a reference book] *Plodovy i lagodnyi*
sad; nastol'naya kniga sadovoda. [Leningrad] Leningradskoe gazetno-
shurnal'noe i kn-vo, 1955. 275 p. (MLR 9:10)
(Fruit culture)

KRYUKOV, F.A.

Characteristics of the distribution of fresh and slightly saline
underground waters in the northern Kyzyl Kum. Sov. geol. 7 no.10:
151-152 0 '64. (MIRA 17:11)

1. Kazakhskiy gidrogeologicheskiy treat.

KRYUKOV, F.G., inzh.

From work practices of the House for Scientific and Technological Propaganda of the Podolian Economic Council(Ukraine).
Der. prom. 12 no.12:insert 2-3 D '63. (MIR 17:3)

KRYUKOV, F.G.

Work practices at the Home for Scientific and Technological
Propaganda of the Podolian Economic Region. Bum.1 der. prom.
no.2:52 Ap-Je '64. (MIRA 17:9)

KRIUKOV, F.G.

Practices of the center for science and technology promotion in the
Podol'sk Economic Council. NTI no.3:20 '85.

(MIRA 18:6)

I. Starshiy inzh. Doma nauchno-tekhnicheskoy propagandy, g. Chernovtsi
UkrSSR.

KRYUKOV, G.; BOL'SHOV, M.

Working conditions on tractors and agricultural machinery.
Trakt. i sel'khozmash. 31 no. 7:17-18 Jl '61. (MIRA 14:6)

1. Tsentral'nyy komitet profsoyuza rabochikh i sluzhashchikh
sel'skogo khozyaystva i zagotovok.
(Tractors) (Agricultural machinery)

KRYUKOV, O.P.; ZUBOVSKIY, G.P.; GIROVICH, Ya.B.

Electric heating in reinforcing concrete columns. Rats. i izobr.
predl. v stroi. no.75:16-18 '53. (MLRA 7:7)
(Reinforced concrete) (Electric heating)

KRYUKOV, G.L.

A rare spring flood on the western slope of the Arctic Urals.
Meteor. i gidrol. no.4:40-41 Ap '61. (MIRA 14:3)
(Vorkuta River—Floods) (USA River—Komi A.S.S.R.)—Floods)

KRYUKOV, Georgiy Nikolayevich, kandidat tekhnicheskikh nauk; ASHEKO, Sof'ya
Mikhailovna, kandidat tekhnicheskikh nauk; ZMIYENKO, Sergey Mitro-
fanovich, kandidat tekhnicheskikh nauk; KRYUKOV, Georgiy Nikolayevich,
kandidat tekhnicheskikh nauk; SIDOROV, Nikolay Nikolayevich, kandidat
tekhnicheskikh nauk; PAUL', V.P., inzhener, redaktor; YUDZON, D.M.,
tekhnicheskiy redaktor

[Building] Stroitel'noe proizvodstvo. Pod red. M.N. Lebedeva. 2-e
perer. izd. Moskva, Gos. transportnoe zheleznodor. izd-vo, 1954.
489 p.

(Building)

LEBEDEV, Mikhail Nikolayevich, prof.; SHADRIN, Nikolay Aleksandrovich, prof.;
~~ARYUKOV, Georgiy Nikolayevich, dotsent; MOLLOT, Aleksandr Georgiyevich,~~
~~dotsent; PETRUKOVICH, A.A., inzh.; PAL'CHUN, P.S., inzh., retsenzent;~~
~~SOKOLOV, F.G., inzh., retsenzent; EYGEL', I.Yu., inzh., red.; BOBROVA,~~
~~Ye.N., tekhn. red.~~

[Railroad surveying and construction] Izyskania i postroika zheleznykh dorog. By M.N. Lebedev i dr. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniya. Pt.2. [Railroad construction] Postroika zheleznykh dorog. 1961. 319 p. (MIRA 14:8)
(Railroads—Construction)

KRYUKOV, G.N.; KHARYBIN, I.I.

Heat-treating furnace for the hardening of rails. Metallurg 6 no.6:
26-29 Je '61. (MIRA 14:5)

1. Starshiy master termicheskogo otdeleniya re'sobalochnogo tsekha
zavoda im. Dzerzhinskogo (for Kryukov). 2. Rukovoditel' prokatnoy
gruppy teplotekhnicheskoy laboratorii zavoda im. Dzerzhinskogo
(for Kharybin).

(Furnaces, Heat-treating)

(Railroads—Rails)

KLAUZ, Pavel Leonidovich, kand. tekhn. nauk, dots.; KRYUKOV, Georgiy Nikolayevich, kand. tekhn. nauk, dots.; CHERNYSHEV, M.A., prof., retsenzent; ALEKSEYEV, A.P., kand. tekhn. nauk, retsenzent; IVANOV, K.Ye., kand. tekhn. nauk, retsenzent; TIKHOMIROV, V.I., inzh., retsenzent; NEKLEPAYEVA, Z.A., inzh., red.; USENKO, L.A., tekhn. red.

[Organization and operation of mechanized construction and track maintenance work]Organizatsia i proizvodstvo nekhanizirovannykh stroitel'nykh i putevyykh rabot. Moakva, Transzheldorizdat, 1962. 267 p. (MIRA 15:12)

(Railroads—Maintenance and repair)
(Railroads—Construction)

KRYUKOV, G.N., kand. tekhn. nauk; TKACHENKO, V.Ya., inzh.

Efficient types of temporary automobile roads in Siberia.
Trans. stroi. 13 no.8:12-14 Ag '63. (MIRA 17:2)

KRYUKOV, G. P.; NIKIFOROV, A. M.; PETRUSHOWA, N. I., starshiy nauchnyy sotrudnik; GRANIN, Ye. F., nauchnyy sotrudnik

Questions and answers. Zashch. rast. ot vred. i bol. 6 no. 87
39-40 Je '61. (MIR 16:4)

1. Zaveduyushchiy otdelom ohrany truda TSentral'nogo komiteta professional'nogo soyusa rabochikh i sluzhashchikh sel'skogo khozyaystva i zagetovek (for Kryukov). 2. Nikitskiy botanicheskiy sad, Yalta (for Petrushova). 3. Nauchno-issledovatel'skiy institut po udobreniyam i insektofungisidam imeni Samoylova (for Granin).

(Plants, Protection of)

ZAGULYAYEV, A.K.; KRYUKOV, G.P.

Questions and answers. Zashch. rast. ot vred. i bol. 6 no.12:26
D '61. (MIRA 16:5)

1. Otdel entomologii Zoologicheskogo instituta AN SSSR (for Zagulyayev). 2. Zaveduyushchiy otdelem okhrany truda TSentral'nogo komiteta professional'nogo soyuza rabochikh i sluzhbaashchikh sel'skogo khozyaystva i zagotovok (for Kryukov).

GAL'PERIN, I.M.; BOL'SHAKOV, Yu.K.; KRYUKOV, G.S.

Snow remover for switches. Sbor.rats.predl.vnedr.v proizv.
no.5:63-64 '60. (MIRA 14:8)

1. Cherepovetskiy metallurgicheskiy zavod.
(Railroads--Snow protection and removal)

GUREVICH, M.B., arkitektor; YEL'KIN, G.A., arkitektor; FILENKOV, Yu.P., arkitektor; ZIL'BERMAN, G.P., arkitektor; KRYUKOV, G.V., arkitektor; PANCHENKO, N.D., arkitektor; VOLOSHINOV, G.I., arkitektor

Regardless of passengers convenience and economics of constructions. Transp. stroi. 15 no.3:57 Mr '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekhnicheskoy estetiki (for Gurevich, Yel'kin, Filenkov).
2. Novosibirakproyekt (for Zil'berman).
3. MVKhTU (for Kryukov).
4. Moskovskiy gosudarstvennyy proyektnoisyskatel'skiy i nauchno-issledovatel'skiy institut, transporta Ministerstva transportnogo stroitel'stva SSSR (for Panchenko, Voloshinov).

ROGALIN, A.O.; KRYUKOV, G.V.

Industrial testing of equipment for sand drying in a fluidized bed.
Lit. proizv. no.8:12-14 Ag '62. (MIRA 15:11)
(Drying apparatus—Foundry sand) (Fluidization)

BRODSKIY, I.I., inzh.; GNILENKO, B.A.; KRYUKOV, G.Ya.; MARSHAK, V.I.;
KHODAK, I.Z.

Modernization of a continuous pipe-rolling mill. Mekh.i avtom.
proizv. 14 no.1:24-26 Ja '60. (MIRA 13:5)
(Pipe mills)

ACC NR: A17007539

SEARCH CODE: UR/0,32/66/000/003/0033/0035

AUTHOR: Kryukov, G. Ya.

ORG: none

TITLE: Decimal non-reversible and reversible pulse counters based on dynistors and thyristors

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 3, 1966, 33-35

TOPIC TAGS: pulse counter, thyristor

SUB CODE: C9

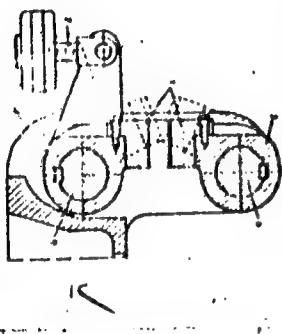
ABSTRACT: The central laboratory of Automation and Mechanization in Dnepropetrovsk has developed decimal pulse counters based on controlled and noncontrolled switching diodes. A detailed description of the operation of the devices is presented. The dynistor pulse counters operate accurately up to a prf of 200 KC. The pulse counters are distinguished by their design simplicity, low power consumption from a single source and ability to operate with circuit element parameter fluctuations of up to 10%. The counters have been used in design of a device for measurement of tube length and can be used in other discrete automatic and remote control circuits. Orig. art. has: 2 figures.
[JPRS: 37,757]

Card 1/1

UDC: 621.374.322: 324: 387.462

093X1517

—КРУЖЕВО, О-ЖИ:



Implementation and Automation of a Con-Optimizer of a Continuous Pilot Plant

FIGURE 2. Part

1 - 10000.

1 - 2000 3 - 2001 4 - 2002

SECTION 9 - FIELD 10 - 01001 11 *

Figure 1. Core descriptive statistics: 2 - variable

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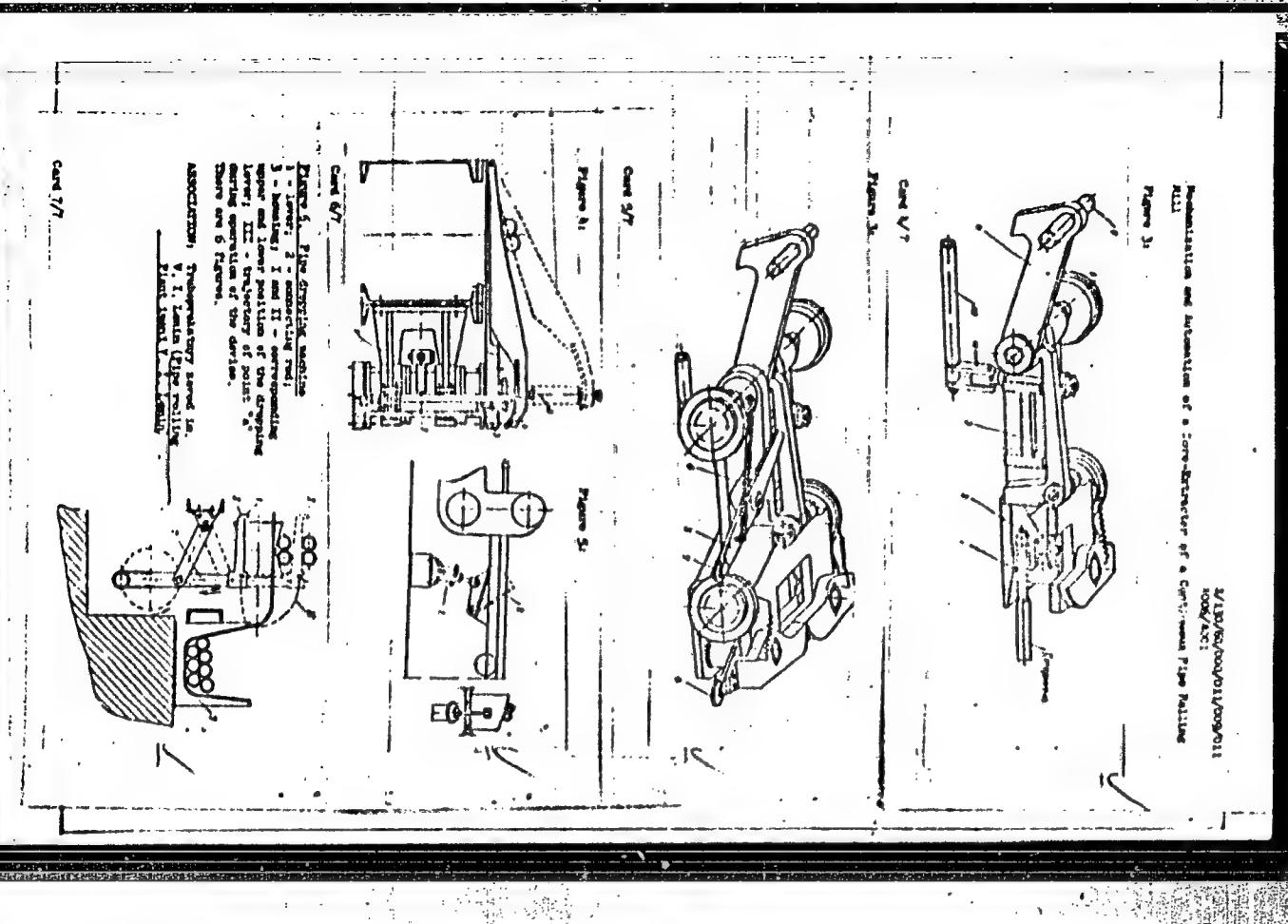
1 - parametric estimator; 2 - MLE.

15 158

1000/2000

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CIA-RDP86-00513R000826910020-3"



BERDYANSKIY, M.G., inzh.; BRODSKIY, I.I., inzh.; KRYUKOV, G.Ya., inzh.;
SLYUSAREV, A.N., inzh.

Automatic marking of hot pipes. Mekh. i avtom. proizv. 15 no.11:
15-18 N '61. (MIRA 14:11)
(Marking devices) (Automatic control)

TOPIC TAGS: pulse multiplying generator, pulse generator

ABSTRACT: The development of a coaxial

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CIA-RDP86-00513R000826910020-3"

KUCHERYAVYY, O.A., inzh.; KRIUKOV, G.Ye., inzh.

Addition of oil and its removal for sampling from operational
high-voltage entrances. Elek. sta. 35 no.11:71-72 N '64.
(MIRA 18:1)

KRYUKOV, I.

Fireboats. Pozh. delo 5 no.5:24-25 My '59. (MIRA 12:6)
(Fireboats)

KRYUKOV, I. (Sverdlovsk).

At the Ural Heavy Machinery Plant. Voen. znan. 33 no.12:10-11 D '57.
(Sverdlovsk--Military education) (MIRA 11:1)

KRYUKOV, I. A.

168T69

USSR/Nuclear Physics - Counters, Geiger Sep 50

"Calculating the Voltage Pulse and the Insensitivity
Time in Geiger Counters," I. A. Kryukov, Moscow State
U

"Zhur Eksper i Teoret Fiz" Vol XX, No 9, pp 842-853

Obtains expressions for pulse of voltage and dead
time of Geiger counters and compares with experimental
values. Finds that time for electrons to gather on
counter filament ~~varies~~ $\frac{1}{2}$ microsec. Shows one can
explain experimental data by taking mobility of posi-
tive ions as constants and by considering collection
time for electrons. Submitted 11 Mar 50.

168T69

FOKS, A.D.; MILLER, S.Ye.; VENIS, M.T.; LOMIZE, L.G. [translator]; MIRMANOV,
Ruben Gayevich, redaktor; KRYUKOV, I.A., redaktor; KORUZEV, N.H.,
tekhnicheskiy redaktor

[Behavior and application of ferrites in the microwave region.
Translated from the English] Svoistva ferritov i ikh primenenie
v diapazone SVCh. Perevod s angliiskogo L.O. Lomize. Moskva, Izd-
vo "Sovetskoe radio," 1956. 99 p. (MLR 9:3)
(Ferromagnetism)

DODIN, A.Ya., inzh.; KRYUKOV, I.I., dotsent; PRONIN, A.I., inzh.;
SIRYACHENKO, K.P., inzh.; STOVAS, M.V., dotsent; YPSHTEYN, M.M.,
dotsent.

Engineering and geodetic observations on deformations in transport-
and-dumping bridges. Ugol' Ukr. 3 no.7:24-27 J1 '59.

(MIRA 33(11))

1. Dnepropetrovskiy gornyy institut.
(Mine surveying)

KRYUKOV, I.I., dotsent; SIRYACHENKO, K.P., inzh.; STOVAS, M.V., dotsent

Using an engineering geodetic method to determine deformation
of transporter bridges. Izv.vys.ucheb.zav.; gor.zhur. 5
no.2:82-85 '62. (MIRA 15:4)

1. Dnepropetrovskiy ordena Trudovogo Krasnogo Znameni gornyy
instituta imeni Artyoma. Rekomendovana kafedroy geodezii.
(Transporter bridges)

GORYUNOV, A.I., inzh.; KLYUKOV, I.I., detsent; SIRYACHENKO, K.P., inzh.;
STOVAS, M.V., detsent

New method of determining corrections for bonds in the metal construction of transporter bridges. Izv. vys. ucheb. zav.; gor. zhur.
6 no.7:87-90 '63. (MIRA 16:9)

1. Dnepropetrovskiy ordena Trudevego Krasnogo Znaniya gernyy in-
stitut imeni Artyoma. Rekomendovana kafedrey geodezii Dnepropetrovs-
kogo instituta.

(Transporter bridges)

...107 OV, 1, 1.

Leplavki na strelzheshivayushchikh detalj, poslikoemyma tvrzin
s plavom stalinit. (Coating of the surface of parts subject to high wear
with the powder-base metal stalinit by molten-on.)

Moscow 194.

KRIUKOV, I. I.

KRIUKOV, I. I. Hardfacing of worn out parts with powdered stellite alloy. Moskva, Gos. nauch.-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1946. 21 p. (50-19882)

TS227.K73

PLYATSKOVSKIY, O.A., kandidat tekhnicheskikh nauk; LIVSHITS, A.S., kandidat tekhnicheskikh nauk; SHCHEPAK, M.I., inzhener; LOZINSKIY, A.B., inzhener; KHYUKOV, I.I., inzhener.

Increasing the sturdiness of pilger mill rolls by means of weld seams. Vest.
mash. 33 no.11:87-88 N '53.

(MLRA 6:12)
(Rolling-mill machinery)

3421 KRYUKOV, I. I.

Naplavka bystroiznashivayu shchikhaya detaley poroshkoobraznym Tverdym
splavom stalinit. Pod. red. B. Z. Levina. 3-e izd M., metallurgizdat,
1954 23 s. s ill. 22 sm. (M-vo tsvet metallurgii S.S.R. soyu_znyy trest
tverdykh splavov. Vsesoyuz kontora tekhn nomoshchi po tverdym splavam)
2.000 ekz. V. Ts. Na obl. avt. ne ukazan (54-57996) 621.81: 621.791.92 +
621.791.92

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part of the book, the illustrations in the book, and

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CIA-RDP86-00513R000826910020-3"

KANYUKA, N.S., kand. tekhn. nauk; KUCHER, M.G., inzh.; KRYUKOV,
I.M.; ZEL'TSER, R.Ya.; RODICHKINA, M.P.; MIKHAYLOV, I.K.;
GAYDAY, V.K., red.

[Overall mechanization of the assembly of industrial
structures; methodological manual on the selection of ef-
ficient sets of assembling machinery] Kompleksnaia mekha-
nizatsiia montazha promyshlennyykh sooruzhenii; metodicheskoe
posobie po vyboru ratsional'nykh komplektov montazhnykh ma-
shin. Kiev, Budivel'nyk, 1965. 192 p. (MIRA 19:1)

1. Nauchno-issledovatel'skiy institut stroitel'nogo proiz-
vodstva.

KRYUKOV, I.M., monter; KOROVIN, G.S., elektromekhanik; YEDOROV, I.M.,
elektromekhanik

Device for lifting storage battery plates. Avr., telem. i svias' 5
no.1:25-26 Ja '61. (MIRA 14:3)

1. pushkinskaya distantsiya signalizatsii i svyazi Moskovskoy dorogi
(for Kryukov).
(Storage batteries)

KRYUKOV, I.N.

Combined action of humoral and cellular elements in vitro tumor destruction. Vop.onk. 4 no.2:131-136 '58. (MIRA 12:8)

1. Iz otdela immunologii i zlokhachestvennykh opukholey (sav. - prof. L.A. Zil'ber) Instituta epidemiologii i mikrobiologii im. pochetyogo akademika N.P. Gamaleya AMN SSSR. Adres avtora: Moskva, D-182, Shchukinskaya ulitsa., d.33, Institut epidemiologii i mikrobiologii im. Gamaleyna.

(NEOPLASMS, exper.

inhib. of cancer cell growth in tissue culture
by simultaneous action of humoral & cellular
elements (Rus))

L 46286-66 EWT(m)/ENP(t)/ETI IJP(c) JD/HW/JG
ACC NR: AP5025335

SOURCE CODE: UR/0126/65/020/003/0460/0462

AUTHOR: Dunayev, F. N.; Kalinin, V. M.; Kryukov, I. P.; Maysinovich, V. I.

52

51

B

ORG: Ural State University im. A. M. Gor'kiy (Ural'skiy gosuniversitet); Institute of Physics of Metals, AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: The magnetic saturation intensity of Co-Pt alloy

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 3, 1965, 460-462

TOPIC TAGS: cobalt alloy, platinum alloy, magnetic saturation, TEMPERATURE DEPENDENCE

ABSTRACT: The thermal dependence of the specific magnetic saturation intensity of a Co-Pt alloy of nearly equiatomic composition was determined from liquid nitrogen temperature to 700K, in order to study the nature of the high coercivity of such magnets. Spherical samples of 3.8 mm diam were prepared. Their specific magnetic saturation intensity was measured after 30 min heating at 1000C, cooling at a rate of 1.3C/sec, and annealing 3, 6, 9, or 13 hr at 600C using fields up to 80kOe for magnetization. The specific magnetic saturation intensity increased with field strength and decreased with annealing time and with the temperature at magnetization, reaching a maximum of $43.5 \text{ G} \cdot \text{cm}^3 \cdot \text{g}^{-1}$ for tempered and not annealed samples. The results indicate that magnetization of the tetragonal and well defined phase, formed during

Card 1/2

UDC: 538.114:248

116286-66

ACC NR: AP6025863

the annealing process, is 35-40% lower than that of the cubic disordered phase generated at 850C and higher temperatures. The authors thank R. Z. Levitin for making available information on the method of measuring magnetization in pulse fields before its publication. Orig. art. has: 3 figures.

SUB CODE: 11,20/ SUBM DATE: 21Aug84

/ ORIG REF: 004/ OTH REF: 002

65
Card 2/2

DUNAYEV, F.N.; KALININ, V.M.; KRYUKOV, I.P.; MAYSINOVICH, V.I.

Magnetization saturation of the Co-Pt alloy. Fiz. met. i
metalloved. 20 no.3:460-462 S '65.

(MIRA 18t11)

1. Ural'skiy gosudarstvennyy universitet imeni A.M.Gor'kogo
i Institut fiziki metallov AN SSSR.

5(1)

SOV/64-59-3-7/24

AUTHORS: Zabotin, K. P., Morozov, L. A., Kryukov, I. V., Frantinskii, A. A.TITLE: Experiment With a Continuous Polymerization of Methylacrylate
in Emulsion (Opyt nepreryvnoy polimerizatsii metilakrilata v
emul'sii)

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr 3, pp 30 - 31 (USSR)

ABSTRACT: Despite of the advantages of a tube reactor for the continuous polymerization (PS) of methylacrylate (I) it was not used in this case, as (P) starts at 72° with the applied initiator (ammonium persulfate), and is followed by an intensive development of gas. A somewhat different system with a cylindric reactor was used which served the purpose of PVC polymerization (Ref 1) (Fig - scheme of the system). For the (P) technical (I) was used with about 93% (I), 0.2% of acid and 0.1-0.2% of hydroquinone. The latter was separated before the (P) by means of a 5% NaOH solution. "Necal" and sulphanol served as emulgators. The composition of the reaction compound is given. The polymerization degree of the received product amounted to about 500. Data concerning the viscosity, respectively the (MW) are also given. It is stated that speed and the (P) degree are lower in the continuous (P) than in the periodical

Card 1/2

Experiment With a Continuous Polymerization of
Methylacrylate in Emulsion

SOV/64-59-3-7/24

(P). Data are given of a (P) of (I) according to the continuous method under the application of sulphanoles and various amounts of ammonium sulfate, as well as a (P) of (I) with 0.002% of hydroquinone. The latter showed that the MW of the polymer is increased by a reduction of the hydroquinone content. There are 1 figure and 1 reference.

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5(3)

06214

SOV/64-59-6-6/28

AUTHORS: Zabotin, K. P., Morozov, L. A., Kryukov, I. V., Frantinskiy, A. A., Golubev, A. A.

TITLE: Continuous Method of the Copolymerization of Butyl Acrylate With Acrylonitrile in Emulsions

PERIODICAL: Khimicheskaya promyshlennost', 1959, Nr. 6, pp 486 - 487 (USSR)

ABSTRACT: The product obtained by the copolymerization mentioned in the title is used in the manufacture of artificial leather, in leather dyeing, etc. Publications mention a semi-continuous method (Ref 1) for this polymerization. Here, a continuous method is described, which has already been proposed for the copolymerization of divinyl with styrene (Ref 2). From the scheme given (Fig) it is seen that a tube reactor is used. The following composition in parts by weight is used as reaction mixture: butyl acrylate: 54, "sulfonol" (emulsifier): 2, ammonium persulfate (as initiator): 0.1, acrylonitrile: 16, water: 100. The reaction mixture was introduced into the reactor at a rate of 1.2 l/h and 1.8 l/h respectively, and the copolymerization was carried out at approximately 80°. In order to prevent

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Continuous Method of the Copolymerization of Butyl Acrylate With Acrylonitrile in Emulsions 06214
SOV/64-39-6-6/28

coagulation of the finished latex 4-7% of ethylene glycol was added. There are 1 figure and 2 references.

Card 2/2

DOLLEZHAL, N. A.; ALESHCHENKOV, P. I.; YEMELYANOV, I. Ya.; ZHIRKOV, A. D.; ZVEREVA, G. A.;
MORGUNOV, N. G.; KRYUKOV, K. A.; MITYAYEV, Yu. I.; KNYAZEVA, G. D.

"Development of superheating power reactors of Beloyarsk nuclear power station
(BAES) type."

report submitted for 3rd Intl Cong, Peaceful Uses of Atomic Energy, Geneva,
31 Aug-9 Sep 64.

L 20048-65 EPF(c)/EPF(n)-2/EPR/EWT(m) Pr-4/Pu-4/Pu-4 SSD/ATWL DM
ACCESSION NR: AP4049533 6/0089/64/017/005/0335/0344

8c

AUTHORS: Dollezhai', N. A.; Yemel'yanov, I. Ya.; Alekchenkov, P. I.;
Zhirkov, A. D.; Zvereva, G. A.; Morgunov, N. G.; Mitycyev, Yu. I.;
Knyazeva, G. D.; Kryukov, K. A.; Smolin, V. N.; Lunina, L. I.;
Kononov, V. I.; Petrov, V. A.

TITLE: Development of Power reactors of the type used in the Belo-
yarsk Atomic Station with nuclear steam superheat /9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 335-344

TOPIC TAGS: reactor feasibility study, reactor fuel element, reac-
tor power, reactor coolant

ABSTRACT: After stating that a desirable trend in the development
of reactor construction is towards larger per unit power ratings,
which call for larger turbine steam pressures and temperatures, the
authors discuss the feasibility of further development of uranium-

Cord 1/17

L 20048-65
ACCESSION NR: AP4049533

graphite reactors of the channel type, such as are used in the Beloyarsk atomic electric station, with nuclear superheating of the steam. The rating has been increased to 200 MW by changing over from two-loop to single-loop operation and by modifying the working channels. The use of trans-critical parameters will improve the heat transfer and hydrodynamics of the coolant flow and, together with the use of single-pass construction will make ratings of 800--1000 MW possible. Burnup rates of 40--45 thousand MW-day are projected with 5% enrichment. Other topics discussed are possible interchangeability of fuel elements, optimal fuel element construction, optimal channel arrangement, and possible improvements in the neutron balance and distribution. Orig. art. has: 8 figures and 3 tables.

ASSOCIATION: None

Card 2/3

KRYUKOV, K.A., kandidat tekhnicheskikh nauk.

Determining the critical angular speed of multidisk rotors
by means of the tabular method. Trudy MAI no.55:5-62 '56.

(MLRA 9:10)

(Rotors) (Airplanes--Turbojet engines)

AUTHOR: Kryukov, K.A.

SOV/147-58-3-14/18

TITLE: The Effect of the Mass of a Shaft on the Critical Speeds of Rotors (Uchet raspredelennoy massy vala pri raschete kriticheskikh skorostey rotorov)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Aviatsionnaya Tekhnika, 1958, Nr 3, pp 112-118 (USSR)

ABSTRACT: The author (Ref.1) has already dealt with the case of a number of heavy discs connected by short lengths of a weightless shaft was considered at length. Such an approach gives fairly inaccurate critical speeds when the shaft is long. The present paper takes into account the mass of the shaft. The cases of slender shafts of a uniform cross-section are considered only. The inertia effects due to bending and the gyroscopic moments are neglected. Consider an element of the shaft as shown in Fig.1. For slender shafts and no concentrated loads the differential equation of rotation is given by Eq.1 where the symbols have their usual meaning with the following exceptions: F - cross sectional area; v - intensity of applied loading (distributed); $\mu = \frac{F}{F} + v$ - total

distributed mass of the shaft per unit length.

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SOV/147-58-3-14/18

The Effect of the Mass of a Shaft on the Critical Speeds of Rotors

Substitution of the solution (Eq.2) into Eq.1 leads eventually to Eq.4 through a new substitution $\{i = x - bi$ as indicated in Fig.1. C_{1i} , C_{2i} , C_{3i} and C_{4i} are constants of integration and S' , T , U and V are the trigonometric and hyperbolic function as explained in Eq.5. Differentiation of these leads to Eq.6 and 7, from which with the help of Fig.1 which explains the boundary conditions, the constants of integration are determined, as given in Eq.8. Denoting now $f(0) = A_i$ and $f'(0) = Q_i$ and remembering that $f''(x) = M(x)/EI$, $f'''(x) = Q(x)/EI$, the constants C_{3i} and C_{4i} are determined in terms of the bending moment and the shear force respectively and hence the corresponding expressions for the right hand side of the beam are obtained in terms of those on the left hand side, Eq.9. If the mass of the shaft in relation to the concentrated masses on it is small, or if the frequency of vibration is small, the mass of the shaft may be neglected, i.e. $\mu = 0$ whence $\alpha = 0$. This leads to indeterminate expressions in Eq.5 and to obviate this difficulty the functions are

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SOV/147-58-3-14/18

The Effect of the Mass of a Shaft on the Critical Speeds of Rotors

expanded in series as shown by the first three equations on page 115. Then for $\alpha = 0$ their values are obtained in the next three equations and these are employed to transform Eq.9 into Eq.10. These relations can be derived directly by considering the equilibrium of the forces and moments acting on the element (Fig.2), where ν_i - is the angle of rotation due to unit moment acting on the right hand section of the element; β_i - is the transverse displacement due to unit moment, or the angular displacement due to unit force, acting on the right hand section; δ_i - is the transverse displacement due to unit force at the right end, the left hand end being assumed fixed (i.e. the element is considered as a cantilever beam). Relating now the deflections and slopes at both ends of the element and using the substitutions of Eq.11 as well as the expressions for $M_i + 1$ and $Q_i + 1$ from Eq.10 the other two equations of 10 are obtained. Similarly, if the element be fixed at the right end (Fig.3) and loaded by unit force and unit moment at the free end the corresponding values of

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SOV/147-58-3-14/18

The Effect of the Mass of a Shaft on the Critical Speeds of Rotors

\bar{v}_i and $\bar{\beta}_i$ and $\bar{\delta}_i$ can be obtained as given by Eq.12, 13, 14, 15 and 16. The Eq.17 or 18 correspond then to Eq.11. If the cross-section of the element is constant, these coefficients are identical in each case. Consider now the case of a heavy disc (i.e. a concentrated mass at a point) on the shaft (Fig.4). The equilibrium of the forces and moments gives Eq.19 and if the shaft is hinged at both ends $A_1 = M_1 = A_2 = M_2 = 0$, hence using relations of Eq.9, the functions T and V can be determined from which, with the help of Eq.5, the shape of the deflection curve and the critical speeds w_j follow. In general, the above approach can be also applied to the more complicated systems by considering each element individually, the boundary conditions at the end of one element being, of course, the corresponding boundary

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SOV/147-58-3-14/18

The Effect of the Mass of a Shaft on the Critical Speeds of Rotors
conditions at the beginning of the next element, etc.
so that the method may be applied to any number of discs
on the shaft. There are 4 Figures and 1 Soviet
reference.

ASSOCIATION: Moskovskiy Aviatsionnyy Institut, Kafedra Konstruktsii
Aviadvigateley (Moscow Institute of Aeronautics, Chair
of Aeroengine Construction)

SUBMITTED: 4th March 1958.

Card 5/5

AUTHOR: Kryukov, K. A.

SOV/147-58-4-12/15

TITLE: The Effect of the Mass of the Shaft on the Critical Revolutions of a Turbine Rotor (Vliyaniye massy vala na kriticheskiye uglovyye skorosti rotora turbiny)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Aviatsionnaya tekhnika, 1958, Nr 4, pp 101-108 (USSR)

ABSTRACT: The method used in the article is based on the coefficients of dynamic deformation of the rotor system taking into account the mass of the shaft M_B . As shown in Fig 1, the system is split into two portions (left portion a and the right portion b), the shaft being of a constant diameter throughout and simply supported at 2. Periodic bending moment of the amplitude a^2 is applied at 2 to the left portion a; this will produce oscillations of an amplitude $a\sqrt{2}$. The author introduces now the concept of the dynamic deformation factors (or coefficients) as defined by Eqs (1) and (2) (which simply represent the amplitudes of the angular oscillations under a unit Bending Moment at 2). Then utilizing Eqs (3) and (4) and remembering that the angle of deflection at 2 for both portions must be the same, Eq (5) follows. Hence, by applying relations (9) and

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COV/147-58-4-12/15

The Effect of the Mass of the Shaft on the Critical Revolutions of a Turbine Rotor

and (5) of Ref 1, Eqs (6) and (7) are obtained. For $\alpha < \pi$, expression (7) can be expanded into a series from which in the case of a short shaft and small circular frequency ω , retaining only the first term of the series, Eq (8) holds true. For the right portion of the system, using Eqs (10) of Ref 1 and noting that at the left end of this portion $A_2 = 0$ and $M_2 = -1$, we get Eqs (9). By Eqs (19) of Ref 1, the bending moment M_2 and the shear force Q_2 to the right of the disc are then obtained (as quoted here) from which together with Eqs (9), b^{a22} is eventually found: Eqs (10), (12) and (15). Using now Eqs (15), (7) and (5), Eq (16) is obtained, from which the frequencies can be determined. At first, two limiting cases are considered, that given by Eq (17) whose solution is Eq (19), and the other given by conditions of Eq (20) whose solution is given by Eq (21). These two results combined with Eq (19) may be applied to the solution of a uniform beam hinged at one end and built-in rigidly at the other end. For the case of a weightless

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SOV/147-58-4-12/15

The Effect of the Mass of the Shaft on the Critical Revolutions of a Turbine Rotor

shaft Eqs (5), (8) and (10) after some transformations and simplifications lead to Eq (22). The solution of Eq (16) may be obtained graphically as shown in Fig 2. The left hand side terms are given by the curve a in the figure; it cuts the axis of α at the points given by Eq (21) and tends to infinity (is discontinuous) at the values of α given by Eq (18). The curve can be traced by using the tables of the functions $B(\alpha)$ and $S_1(\alpha)$ (see Ref 2). For small values of α the curve may be approximated by the line

$$\frac{B(\alpha)}{S_1(\alpha)} = \frac{\alpha}{3} .$$

This curve does not depend upon the elastic and inertia characteristics of the system, therefore, it may be applied to any particular case. The right hand side of Eq (16) on the other hand does depend on the elastic and inertia characteristics of the system and differs from case to case. For this reason two particular cases are considered in the article, viz:

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The Effect of the Mass of the Shaft on the Critical Revolutions of
a Turbine Rotor

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Example 1: Oscillations of the rotor of a turbine (data given on the top of p 107) under the conditions when the shaft does not rotate and under the conditions of synchronous precession.

Example 2: Critical revolutions of the same rotor but with double length of the shaft (distance between the supports is doubled).

The graphs are shown in Fig 2 as $\varphi_1(\alpha)$, $\varphi_2(\alpha)$ and $\varphi_3(\alpha)$ respectively. The intersection points of these curves with the curves (a) yields the required solutions. There are 3 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Kafeura konstruktsii aviadvigateley (Chair of Air Engine Construction) Moskovskiy aviationsionnyy institut (Moscow Institute of Aeronautical Engineering)

SUBMITTED: March 4, 1958

Card 4/4

KRYUKOV, K A

PHASE I BOOK EXPLOITATION

SOV/3985

SOV/11-M-100

Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze

Izgibnyye kolebaniya detaley gazoturbinnykh aviadvigateley; sbornik statey
(Bending Vibrations of Aircraft Gas-Turbine Components; Collection of
Articles) [Moscow] Oborongiz, 1959. 84 p. Errata slip inserted.
(Series: Its: Trudy, vyp. 100) 2,150 copies printed.

Ed.: G.S. Skubachevskiy, Doctor of Technical Sciences, Professor;

Ed.: S.I. Bumshteyn, Engineer; Managing Ed.: A.S. Zaymovskaya, Engineer;

Ed. of Publishing House: S.I. Vinogradskaya; Tech. Ed.: V.I. Oreshkina.

PURPOSE: This collection of articles is intended for personnel of scientific
research institutes and design offices, and also for aspirants, instructors,
and students of special courses at schools of aeronautical engineering.

COVERAGE: The collection consists of two papers on the results of theoretical
and experimental research on vibrations of the rotor and the casing of air-
craft gas turbines. Methods for calculating the vibration frequencies are
given, and calculation examples and recommendations are presented. Soviet

Card 1/3

Bending Vibrations of Aircraft (Cont.)

SOV/3985

scientists A.F. Gurov and V.K. Zhitomirskiy are mentioned in the first paper.
References accompany both papers.

TABLE OF CONTENTS:

Preface [G.S. Skubachevskiy]	3
<u>Kryukov, K.A.</u> , Candidate of Technical Sciences, Docent. Coupled Bending Vibrations of the Rotor and Casing of an Aircraft Gas Turbine	5
This paper presents an analytical method for calculating coupled vibrations of a turbojet engine which takes into account the deformations of the rotor bearings and bearing supports as well as the deformation of other components of the engine. A simplified treatment is given for first identifying approximately the spectrum of critical frequencies and rotational velocities, following which a more complex but more accurate calculation is made to determine these parameters.	
<u>Khronin, D.V.</u> , Candidate of Technical Sciences, Docent. Coupled Bending Vibrations of Shafts and Disks	60
In contrast to the usual assumption of an infinitely rigid disk, the treatment in this paper takes into account the bending	

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Bending Vibrations of Aircraft (Cont.)

SOV/3985

vibrations associated with the finite flexibility of the disk as a part of the coupled system. The report presents the equations of the bending vibrations of the disk and shaft and gives methods for calculating their coupled bending vibrations. The method of dynamic rigidities is used which considerably facilitates the calculation of complex systems. The report presents experimental data from tests of a shaft-disk model and gives two calculation examples.

AVAILABLE: Library of Congress

Card 3/3

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26.11.20

33499

S/535/61/000/136/001/006
E191/E381

AUTHOR: Kryukov, K.A., Candidate of Technical Sciences, Docent

TITLE: The effect of design parameters on the critical speeds of the system consisting of the rotor, casing and mountings of an aviation gas-turbine engine

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 136. 1961. Nekotoryye voprosy issledovaniya kolebaniy v aviatsionnykh dvigatelyakh. 5 - 15

TEXT: In the operation of aviation gas turbines, severe vibrations have been experienced at rotor speeds substantially different from the theoretical critical shaft speeds. The discrepancy is explained by the effects of the flexibility of the casing and the mountings of the complete engine. A simplified system simulating the compressor of a turbo-jet engine is considered, in which the rotor is represented by a single disc in the centre of a flexible shaft. The ends of the shaft are flexibly supported by equal springs on a slab representing the casing, which is itself supported at the same points, also by equal springs, upon the foundation. In the author's earlier Card 1/3

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S/535/61/000/136/001/006

The effect of design parameters ... E191/E381

work (Ref. 1: Coupled flexural vibrations of the rotor and the casing of an aviation gas-turbine engine, Trudy MAI, Issue 100, Oborongiz, 1959), frequency equations for the free vibrations of the system here considered were derived. These equations are so constructed that the effect of each one of the three flexibilities involved in the simplified system (apart from the flexibility of the rotor shaft itself) namely, the flexibilities of the shaft bearings, the casing and the engine mountings can be separately assessed. Also, in view of the flexible supports, gyroscopic effects may be appreciable, although the rotor disc is between the supports. It is found that practical values of the design parameters in actual engines are such that the effect of bearing flexibilities and engine mountings are decisive. In a typical case given in a numerical example, the lowest natural frequency of the shaft alone is 3 050 radians/sec but is reduced by bearing and mounting flexibilities to 860 radians/sec. However, taking account, in addition, of the casing flexibility,

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The effect of design parameters ... 33499
S/535/61/000/136/001/006
E191/E381

only changes the critical speed by 1.6%. This generally valid conclusion leads to a greatly simplified frequency equation. By appropriate and easily accomplished modifications of the bearing supports and the engine mountings, the working-speed range of the engine can usually be freed from resonant frequencies.

There are 7 figures and 1 Soviet-bloc reference.

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Card 3/3

26.11.20

53500

S/535/61/000/136/002/006
E191/E381

AUTHOR: Kryukov, K.A., Candidate of Technical Sciences, Docent

TITLE: Contribution to the determination of the dynamic flexibilities of rotors in aviation gas-turbine engines

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no. 136. 1961. Nekotoryye voprosy issledovaniya kolebaniy v aviationsionnykh dvigatelyakh. 16 - 39

TEXT: In the author's previous work (Ref. 1: Coupled flexural vibrations of the rotor and the casing of an aviation gas-turbine engine, Trudy MAI, Issue 100, Oborongiz, 1959), a method was given for determining the dynamic flexibilities of rotors with an arbitrary number of discs. In the present paper, simplified methods are given for those cases in which the rotor can be simulated by a system with a single concentrated mass. In the first part, the dynamic flexibilities are derived for a system consisting of a single disc on a weightless elastic shaft. Flexibility is defined as the displacement due to a unit force. According to the point of application of the force and the point of the displacement, different flexibilities are defined and

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Contribution to

derived. When the force oscillates, the flexibility becomes a dynamic flexibility. A system with an overhung disc is considered next, which simulates a typical gas-turbine rotor. Owing to gyroscopic effects, the dynamic flexibilities are different for rotating and non-rotating systems. The connection between dynamic flexibilities and critical speeds is shown. The static flexibility of axial compressors of the drum and similar types, which enters into the dynamic flexibility, is difficult to compute analytically. Even experimental values depend on very thorough test arrangements. It is shown, however, that a 15% error in the static flexibility causes only 1% error in the important dynamic flexibilities. In the second part of the paper, the dynamic flexibilities are computed for rotors of gas-turbine engines, in which the compressor and turbine shafts are connected by universal joints or by spline connections with sufficient clearance to create the effect of a universal joint. It is shown that, when the frequency of oscillation approaches zero, all the dynamic flexibilities increase to infinity. This property is characteristic of free systems or systems with incomplete fixing. When

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Contribution to

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E191/E381

the frequency increases to infinity, some dynamic flexibilities become equal to the static flexibilities. Other dynamic flexibilities tend to zero. Acknowledgments are expressed to Engineer V.N. Blokhina for her assistance with the calculations. There are 15 figures, 3 tables and 2 Soviet-bloc references.

✓

Card 3/3

DOLLEZHAI', N.A.; YEMEL'YANOV, I.Ya.; ALESHCHENKOV, P.I.; ZHIRNOV, A.D.;
ZVEREVA, G.A.; MORGUNOV, N.G.; MITYAYEV, Yu.I.; KNYAZEVA, G.D.;
KRYUKOV, K.A.; SMOLIN, V.N.; LUNINA, L.I.; KONONOV, V.I.;
PETROV, V.A.

Development of power reactors typifying those of the
Beloyarsk Atomic Power Station using nuclear-superheated
steam. Atom. energ. 17 no.5:335-344 N '64. (MIRA 17:12)

KIRJUKOV, K. F.; Vet.

enterotoxemia

"Bradsot and anaerobic enterotoxina of sheep (softened kidney)"
SD: Veterinarija, 27 (5), 1950, p. 27.

1. KRYZOV, K. F. — KARGAPOLOV, YE. A.
2. USSR (600)
4. Poisonous Plants
7. Spring feed poisoning of sheep by Ceratocephalus falcatus. Kar. i zver.
5 no. 5, 1952
9. Monthly List of Russian Accessions, Library of Congress, January 1953. Unclassified.

KRYUKOV, Kh.N.; SIVUKHIN, V.I.

Machine for determining the fineness of coal milling.
Sbor.rats.predl.vnedr.v proizv. no.1:45-46 '61. (MIRA 14:7)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Testing machines)

KRYUKOV, K.P., inzh.; NOVGORODTSEV, B.P., inzh.

Using low-alloy steel in supporting structures for transmission
lines. Mlek.sta. 29 no.1:46-49 Ja '58. (MIRA 11:2)
(Electric lines--Poles)

KRYUKOV, K.P., inzh; NOVOGORODTSEV, B.P., inzh

Using free-center clamps on electric power lines. Elek.sta. 29
no.9:85-87 8 '58. (MIRA 11:11)
(Electric lines)

KRYUKOV, Kirill Petrovich; KURNOSOV, Aleksey Ivanovich; NOVOGORODTSEV, Boris Pavlovich; SINELOBOV, K.S., inzh., retcenzent; BOSHNYAKOVICH, A.D., inzh., red.

[Construction and design of metal reinforced concrete power transmission line supports] Konstruktsii i raschet metallicheskikh i zholezobetonnykh opor linii elektroperedachi. Moskva, Energiia, 1964. 585 p. (MIRA 17:10)

SMIRNOV, V.S.; KAMENSKIY, M.D.; PODPORIKIN, V.G.; DUKEL'SKIY, A.I.;
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